

Flat Application in Interaction Design

Guoxin Chen^{1, a *} and Yuntian Ma^{2, b}

¹Guilin University of Electronic Technology

²Guilin University of Electronic Technology

^a8127794@qq.com

^b8127794@qq.com

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Abstract. Flat design is a mix of visual style and the concept of interaction design, visual style, information and interactive logic flat hierarchy, is to achieve the ease of use of the interaction and create high quality user experience. This article from the perspective of the social development, the interface design to shift from "quasi materialized" to "flat" reasons, and put forward the flat flat design is not just visual style, more emphasis on the meaning of the interaction level.

The flattening of the current interface has been the culmination of the day, starting with Microsoft's Windows 8, and then Google's android, and now apple's ios, which has a flat design philosophy. In many people's eyes, the flat design is: the interface is designed to be flat, without three-dimensional sense. In fact, until the term "flattening" has become popular, it has always emphasized the ease of use and the creation of quality user experience, and has been trying to do so. And the emergence of the word "flat", realize the goal of the design concept, it is not only a kind of contracted design style, but also a design concept, "to make the content more directly, functions at a lower cost to complete, let users get a better interaction experience."

Design trend of future interface design

On September 11, 2013, when returned to apple ios7.0 minimalist design was introduced and cause the attention of the public, in an instant the sensitive words "flatter design" is pushed to the forefront, a flat style design trends in order to spread the inexorable trend in the field of interface design. All the interface designs have been flattened overnight, and major websites and mobile apps from both home and abroad have been making great efforts to celebrate the convenience of flat design. We can say that ios7.0 has led the design trend, and the trend of future interface design seems to be a thing of the past.

External manifestation of interactive content

There has been a mixed debate about the different flattening of the ios7 style, and many have objected to the flattening of the visual style of ios7. To be sure, the so-called flat design style, which is to directly remove the UI from the texture. People are absorbed in the familiar feeling brought by the quasi-objectification, and they also questioned the change of the flat interface style.

Flat design concept, from the designers hope to people's attention from focus too much on the state of interface elements, return to pay attention to the content itself, and complex texture will only interfere with the content of expression. So the design of ios7.0 is much cleaner than before. But the flat style is not only the abstract embodiment of the concept of objects in the real world in the digital interface, but the premise of flat design is the requirement for the information architecture of the content. Ensure the availability of the flat interface, you first need to comb clear content hierarchy, let users find interacting objects, this basic skills to do under the premise of the so-called "quasi materialized" and the "flattening" argument seems to be less important. The designer's thinking about "flatness", which essentially subverts the presentation of interactive content, the so-called "flat" or "quasi" UI is only its external manifestation.

The flattening of the interaction level

Flat design is a kind of design idea that combines visual style and interactive concept. It cannot be understood literally. No matter that kind of style, its roots in different human needs of The Times,

in the digital equipment's popularity is not high, quasiphysical set the reality and virtual environment to people in a good platform, is a process of transition and guide. But as the diversification of all kinds of mobile terminal equipment and popular, also no longer need to content to help people understand the system itself, people tend to through their own equipment quickly and accurately for counseling.

Along with the rapid development of mobile communications, terminal software load and to communicate the information exploding, how to let users rapidly in a short time to obtain the required content, is the core of every product designers focus on the problem. Whether visual presentation or interactive process, if the user's cognition and learning cost are increased, the interaction experience in the use of the product will be affected. When the information becomes the interface subject and requires more visual attention, the pure decorative design of the past begins to become a heavy burden of the content interface, which must be gradually weakened and stripped. Flat design through the UI icon to be materialized, visual effect to three-dimensional, designed to weaken the "container", strengthen the "content", make information in the process of passing further compression level, more intuitive to content presented to the user.

The flattening style does not mean that the design work itself can be simplified, nor does it mean that the standard of interface usability can be reduced. Apple's redesign of ios7.0 is far from a visual style, and "flattening" is more of an interactive feature than the visual style of the interface.

The application of flat design in interactive design

The flattening of visual style

The change of product interface design can not be separated from the development of the device itself, just as the popularization of widescreen LCD display makes the old web design rapidly obsolete. In recent years, various size and configuration of the emergence of the mobile terminal products to fill the gap between the different levels in the product chain, is increasingly powerful, it can finish the task in some ways already cannot be achieved through the quasiphysical also puts forward higher requirements on interface adaptability. In order to accomplish more complex interactions within the limited space, and avoid the resulting complex operation, designers have to simplify the design language, the interface design return to how to understand the function, content and application itself and "flat style" as the most direct manifestation of rapid evolution.

When interface to eliminate some to increase its simulated real stereo feeling and add elements, such as shadow, embossed, highlights, the gradient or other critical features, after each element and interval, the image and the button, navigation tools, all in the same plane, showing a unique style of two-dimensional plane. Different from quasiphysical through "" light and shadow, features of user information, flattening using highly visual metaphor, abstract graphics or color design, allows users to more easily access to information, helps users understand the content and interaction, and therefore, Windows 8 is still in the exploration of flattening use of metaphor and imitating the increase the capacity of each piece of" magnet "visibility, just don't have the elaborate details. In addition, because of the functional elements, vector graphical elements of the application, make the interface style and the response of the "flattening" type design itself has a better fit, interface interface load faster, stronger contraction elastic, so as to shake off the platform limitation due to equipment environment different, better service to mobile Internet product information transmission efficiency.

The flattening of information architecture

One of the more important design factors in flat design is the maximization of efficiency. Remove the stereo feeling of high light, shadow, relief, it is originally flat, its attention is to strengthen functionalism by weakening visual effect. But if a product is trying to hope that the visual, want to rely on visual to implement product flattening, obviously not enough, designers need to think further flattening from the Angle of information architecture. Any design, designs the process of passing information to users, the purpose of information architecture flat is by reducing the content level, the pursuit of the shortest distance information to users.

Flat at the content level. Information level of flat means that the content is more directly, so when the Windows and wp will display information such as words, pictures directly in the magnetic paste, then emphasizes the content of all the colors of the auxiliary features or classification, show understanding and excitement. Interface as shown in figure a beginning of the Windows, the weather, time, date, quantity and other information displayed on the ICONS, not only simplifies the information level, more reduce the user workload, reflected stylist to the user's emotional care. The flattening of the information hierarchy emphasizes the simplification of operations by constructing more visual cohesive information delivery patterns, reducing the dependency of interactive processes on links. Card design seems to be a microcosm of the recently popular a kind of flat design, can be either a single use to present some short information, can form a sequence, present a series of, a lot of information. Google now print screen as shown in figure 2, the use of card list framework presents information, of information displayed on the front page, the user needs to search results front, save the input, click and page jump steps, let users faster access to the information you need.

Optimization of interactive paths. The streamlining of the information architecture also means that the optimization of the interactive path, which literally means that the user can complete the task with the least steps. Typically, a user needs to arrive at a specific information or function point through a series of actions (including clicking, shake, sliding, touching, etc.). See figure 3 for android 4.1.2 operation path of | closure to | wifi. Figure 3 a - b are respectively by clicking on the button to enter the Settings page, step by step according to the conventional process, figure 3 c is at the top of the arbitrary interface exhaled notification center drop-down menu, click wifi Settings button to complete the operation. For the same goal, hierarchy of downsizing can simplify user's operation steps, improve the efficiency of the structure is also made clear, so in interaction design, the design of the arrival of the different paths will directly affect the user experience of product.

The flattening of the interaction logic

It is often mentioned that the flattening design is visually superior, while ignoring its role in interaction design, the flat design makes the information "feel" better. As Ive said, had a profound impact on the beauty of simplicity, real simple abandoned the redundant decoration, not only it brought order to the complex, understanding of flattening best when apple's "extremely simplified design", which emphasizes the most lightweight, simple design to the core message, emphasizes on visual focus of the guide to allow the user to quickly complete the operation.

The flattening of the visual space. The flat design that loses the texture and depth has its unique look and feel, which relies on a clear visual hierarchy. In order to give users a sense of space, ios7.0 reorganized the spatial logic of the system so that the virtual space was clearly hierarchical. Its icon and control are not all flat u, but with slight gradient, projection, blur, and transparency. Thus, apple has not completely thoroughly perform the so-called flat, only the quasiphysical (dynamic effect, hierarchy, color), the concept of abstracting, from the cognitive and the subconscious level, to design your own interface. Ios7.0 introduces a new concept of visual hierarchy that helps to build depth, build hierarchy and order, and help users understand the physical relationships between screen elements. Ios6.0 and open the folder in the ios7.0 interface as shown in figure 4, figure 4 b folder abandoned the figure 4 a split screen effect, but used the frosted glass effect of placing them on the home screen, make through reasonable visual hierarchy folder contained in the content and other elements on the screen to be able to effectively distinguish.

The function of interaction effect. Nowadays, the trend of over-quasi - objectification is fading, while the dynamic effect of communication can be preserved, only in the form of display is not strongly associated with the object in reality. The designer will make the transition process work as if the same interface is flowing smoothly and you give out the distortion to make the interaction flow smoother and more self-explanatory. Ios7.0 desktop system and their own applications, using the known as collection view conversion interface switching effect, through the movement of the user operation focus centered approach, to guide the user's visual focus on different interface between natural movement. In the desktop level, either click an icon to open the application startup dynamic effect, effect or open the folder, and ios6.0 centered on screen opens at different animation,

ios7.0 open animation is by click on the application, file as the center, to open in the form of amplification. Single from the perspective of the change of the movement effect, compared to the flat ios7.0 ios6.0 quasiphysical is more pay attention to the corresponding rules of animation and the real physical world, not just the visual style design based on two-dimensional plane itself.

Conclusion

Design is not just about appearance, but about everything, including the way work is done. Aside from the style, the original intention of the design and flat design is to accelerate the user's absorption of information resources and improve the user experience of products. The design element simulates the shape and texture of real objects, so that the user can understand the function of the product at a glance. The flattening design, by removing redundant visual elements, highlights the content and allows users to find the information they care about at a glance. The existence of design is to solve the problem better, and the flat of the interaction goes way beyond the flat of vision, towards a more pure purpose, everything is for the presentation of efficiency and content.

References

- [1] Pang Bo. Look from the Flat Style Interface Design Ment Trend[J]. Zhuangshi, 2014 (4) : 127-128.
- [2] Wu Jun, MO Lei. Multiple Levels Visual Model for Interactive Design of Smart Phone[J]. Packaging Engineering, 2013, 34 (6) : 14-17.
- [3] Yi Min-zhe. Reflections on the Flat of the Phone Interface DeSign [J]. Dazhong Wenyi, 2014 (1) : 108.
- [4] Ma Na Na Na. Simple but not Boring: Introduction to the Flat Interface Design[J]. Dazhong Wenyi, 2013 (16) : 137-138.
- [5] Wang Yi, ZHAO Gang. Interpretation of the Materialized Design of Mobile Interface[J]. Packaging Engineering, 2013, 34(18) : 581-61.
- [6] Xia ying-chong. Simple and Redundant Design in Interface Design for Digital Products[J]. Zhuangshi, 2013 (5) : 98-99.
- [7] Zhang Gui - Ming. Simplicity and Efficiency: Organization Strategy of the human-to-computer Interface[J]. Zhuangshi, 2013(5) : 98-99.
- [8] Song Fang, JIN jin-hong, LU Xin-hui. Analysis of "Flat" Concept for Mobile Phone Interface Design[J]. Packaging Engineering, 2014, 33 (14) : 60.
- [9] Wu li-ting. Research on the Flat Interface Design Based on Functionality [J]. The Design, 2014 (6) : 83-84.
- [10] Yin Jun, SU Zi-shun. Research on Functional Animation De The sign Based on iOS Platform[J]. Journal of Mechanical Design, 2013 (9) : 120-122.